Volume 44, Number 1, July 1, 1998

EDITORIAL

1 **What Do Antidepressant Effects on Sleep Tell Us about Pathways to Treatment Response?**
Charles F. Reynolds III

ORIGINAL ARTICLES

3 **Comparative Effects of Nefazodone and Fluoxetine on Sleep in Outpatients with Major Depressive Disorder**
A. John Rush, Roseanne Armitage, J. Christian Gillin, Kimberly A. Yonkers, Andrew Winokur, Harvey Moldofsky, Gerald W. Vogel, Stephen B. Kaplita, Jonathan B. Fleming, Jacques Montplaisir, Milton K. Erman, Bruce J. Albala, and Robert D. McQuade

15 **Plasma Corticotropin-Releasing Factor in Depressive Disorders**
Roberto Catalán, José M. Gallart, José M. Castellanos, and Rosa Galard

21 **Sleep Electroencephalographic Response to Muscarinic and Serotonin$_{1A}$ Receptor Probes in Patients with Major Depression and in Normal Controls**
Erich Seifritz, J. Christian Gillin, Mark H. Rapaport, John R. Kelsoe, Tahir Bhatti, and Stephen M. Stahl

34 **Structural and Functional Abnormalities in Elderly Patients Clinically Recovered from Early- and Late-Onset Depression**
Sylvia Dahabra, C. Heather Ashton, Majid Bahrainian, Peter G. Britton, I. Nicol Ferrier, Victor A. McAllister, V. Richard Marsh, and P. Brian Moore

47 **Evidence for an Allelic Association between Bipolar Disorder and a Na^+, K^+ Adenosine Triphosphatase Alpha Subunit Gene (ATP1A3)**
Lesley Mynett-Johnson, Valerie Murphy, James McCormack, Denis C. Shields, Eileen Claffey, Patrick Manley, and Patrick McKeon

52 **Effect of Transcranial Magnetic Stimulation in Posttraumatic Stress Disorder: A Preliminary Study**
Nimrod Grisaru, Marianne Amir, Hagit Cohen, and Zeev Kaplan

56 **Plasma Norepinephrine and 3-Methoxy-4-Hydroxyphenylglycol Concentrations and Severity of Depression in Combat Posttraumatic Stress Disorder and Major Depressive Disorder**
Rachel Yehuda, Larry J. Siever, Martin H. Teicher, Robert A. Levengood, Douglas K. Gerber, James Schmeidler, and Ren-Kui Yang

64 **Alprazolam Reduces Response to Loud Tones in Panic Disorder but not in Posttraumatic Stress Disorder**
Arieh Y. Shalev, Miki Bloch, Tuvia Peri, and Omer Bonne

BRIEF REPORTS

69 **Hypnotizability, Pain Threshold, and Dissociative Experiences**
Mehmed Yücel Ağargün, Ibrahim Tekeoğlu, Hayrettin Kara, Burhan Adak, and Muhterem Ercan

72 **Attention-Deficit Hyperactivity Disorder and the Stress Response**
Jean A. King, Russell A. Barkley, and Susan Barrett

Volume 44, Number 2, July 15, 1998

EDITORIAL

75 **Selective Serotonin Reuptake Inhibitor Elimination Half-Lives: The Long and the Short of It**
Robert N. Golden

ORIGINAL ARTICLES

77 **Selective Serotonin Reuptake Inhibitor Discontinuation Syndrome: A Randomized Clinical Trial**
Jerrold F. Rosenbaum, Maurizio Fava, Sharon L. Hoog, Richard C. Ascroft, and William B. Krebs

88 **A Reduction of Nonpyramidal Cells in Sector CA2 of Schizophrenics and Manic Depressives**
Francine M. Benes, Esther W. Kwok, Stephen L. Vincent, and Mark S. Todtenkopf

98 **Nicotinic Receptor Desensitization and Sensory Gating Deficits in Schizophrenia**
Jay M. Griffith, Jaishri E. O'Neill, Frederick Petty, David Garver, David Young, and Robert Freedman

107 **Factor Structure and Clinical Validity of Competing Models of Positive Symptoms in Schizophrenia**
Victor Peralta and Manuel J. Cuesta

115 **P300 and the Thought Disorder Factor Extracted by Factor-Analytic Procedures in Schizophrenia**
Masato Higashima, Katsumi Urata, Yasuhiro Kawasaki, Yoshiki Maeda, Naoto Sakai, Chikako Mizukoshi, Tatsuya Nagasawa, Takahiro Kamiya, Nariyoshi Yamaguchi, and Yoshifumi Koshino

121 **Slow-Wave Sleep and Ventricular Size: A Comparative Study in Schizophrenia and Major Depression**
Christoph J. Lauer and Jürgen-Christian Krieg

129 **Electroacupuncture: Mechanisms and Clinical Application**
George A. Ulett, Songping Han, and Ji-sheng Han

BRIEF REPORTS

139 **Psychotic Symptoms and Apolipoprotein E Genotypes in an Elderly Population**
Yvonne Forsell, Hans Basun, Elizabeth H. Corder, Lars Lannfelt, and Bengt Winblad

141 **Schizophrenia and Impaired Homocysteine Metabolism: A Possible Association**
Ezra Susser, Alan S. Brown, Emelia Klonowski, Robert H. Allen, and John Lindenbaum

Volume 44, Number 3, August 1, 1998

EDITORIAL

145 **New Research Series**
Robert B. Innis, Eric J. Nestler, and Dennis S. Charney

A DECADE OF SEROTONIN RESEARCH

145 **Development of Serotonergic Neurons and Their Projections**
John L.R. Rubenstein

151 **The Spectrum of Behaviors Influenced by Serotonin**
Irwin Lucki

163 **Novel Strategies to Probe the Functions of Serotonin Receptors**
Kimberly L. Stark, Ronald S. Oosting, and René Hen

169 **Regulated Phosphorylation and Trafficking of Antidepressant-Sensitive Serotonin Transporter Proteins**
Randy D. Blakely, Sammanda Ramamoorthy, Sally Schroeter, Yan Qian, Subramaniam Apparsundaram, Aurelio Galli, and Louis J. DeFelice

179 **Genetically Driven Variation in Serotonin Uptake: Is There a Link to Affective Spectrum, Neurodevelopmental, and Neurodegenerative Disorders?**
Klaus-Peter Lesch and Rainald Mössner

193 **Sensitization and Kindling Phenomena in Mood, Anxiety, and Obsessive-Compulsive Disorders: The Role of Serotonergic Mechanisms in Illness Progression**
Robert M. Post and Susan R.B. Weiss

207 **Serotonin and Neuropeptides in Affiliative Behaviors**
Thomas R. Insel and James T. Winslow

ORIGINAL ARTICLES

220 **Intravenous Clomipramine Challenge in Obsessive-Compulsive Disorder: Predicting Response to Oral Therapy at Eight Weeks**
Floyd R. Sallee, Lorrin M. Koran, Stefano Pallanti, Stanley W. Carson, and Gopalan Sethuraman

228 **Continuous Covariability of Dopamine and Serotonin Metabolites in Human Cerebrospinal Fluid**
Thomas D. Geracioti, Jr., Paul E. Keck, Jr., Nosa N. Ekhator, Scott A. West, Dewleen G. Baker, Kelly K. Hill, Ann B. Bruce, and Matthew D. Wortman.

Volume 44, Number 4, August 15, 1998

ORIGINAL ARTICLES

235 **Essential Fatty Acids Predict Metabolites of Serotonin and Dopamine in Cerebrospinal Fluid among Healthy Control Subjects, and Early- and Late-Onset Alcoholics**
Joseph R. Hibbeln, Markku Linnoila, John C. Umhau, Robert Rawlings, David T. George, and Norman Salem, Jr.

243 **A Replication Study of Violent and Nonviolent Subjects: Cerebrospinal Fluid Metabolites of Serotonin and Dopamine Are Predicted by Plasma Essential Fatty Acids**
Joseph R. Hibbeln, John C. Umhau, Markku Linnoila, David T. George, Paul W. Ragan, Susan E. Shoaf, Michael R. Vaughan, Robert Rawlings, and Norman Salem, Jr.

250 **Concurrent Use of Cocaine and Alcohol Is More Potent and Potentially More Toxic than Use of Either Alone—A Multiple-Dose Study**
Elinore F. McCance-Katz, Thomas R. Kosten, and Peter Jatlow

260 **Neuropsychological Function in Adults with Attention-Deficit Hyperactivity Disorder**
Larry J. Seidman, Joseph Biederman, Wendy Weber, Mary Hatch, and Stephen V. Faraone

269 **Does Attention-Deficit Hyperactivity Disorder Impact the Developmental Course of**

Drug and Alcohol Abuse and Dependence?
Joseph Biederman, Timothy E. Wilens, Eric Mick, Stephen V. Faraone, and Thomas Spencer

274 **Biological Parameters in Major Depression: Effects of Paroxetine, Viloxazine, Moclobemide, and Electroconvulsive Therapy. Relation to Early Clinical Outcome**
Catherine Lestra, Thierry d'Amato, Chantal Ghaemmaghami, Armand Perret-Liaudet, Martine Broyer, Bernard Renaud, Jean Dalery, and Geneviève Chamba

281 **Gender Differences in Electrophysiological Responses to Facial Stimuli**
Sara Orozco and Cindy L. Ehlers

290 **Deficient Sensorimotor Gating following Seizures in Amygdala-Kindled Rats**
Michael Koch and Ulrich Ebert

BRIEF REPORT

298 **The Fourteen and Six Positive Spikes and Attention-Deficit Hyperactivity Disorder**
Nashaat Boutros, Mary Fristad, and Abraham Abdollohian

302 **Treatment of Depersonalization Disorder with Clomipramine**
Daphne Simeon, Dan J. Stein, and Eric Hollander

304 **Heart Period Variability and Depressive Symptoms: Gender Differences**
Julian F. Thayer, Marci Smith, Lynn A. Rossy, John J. Sollers, and Bruce H. Friedman

IN MEMORIAM

307 **Markku Linnoila**
David R. Rubinow

Volume 44, Number 5, September 1, 1998

EDITORIAL

309 **Serotonin: How Much We Have Learned! So Much to Discover . . .**
John F. Greden

A DECADE OF SEROTONIN RESEARCH: ANTIDEPRESSANT MECHANISMS AND THERAPEUTICS

313 **Possible Serotonergic Mechanisms Underlying the Antidepressant and Anti-Obsessive–Compulsive Disorder Responses**
Pierre Blier and Claude de Montigny

324 **Novel Therapeutic Approaches beyond the Serotonin Receptor**
Ronald S. Duman

336 **Child and Adolescent Mood Disorders—Experience with Serotonin-Based Therapies**
Neal D. Ryan and Deep Varma

341 **Serotonergic Synergism: The Risks and Benefits of Combining the Selective Serotonin Reuptake Inhibitors with Other Serotonergic Drugs**
Charles DeBattista, Mehmet Sofuoglu, and Alan F. Schatzberg

348 **Implications of Failing to Achieve Successful Long-Term Maintenance Treatment of Recurrent Unipolar Major Depression**
Martin B. Keller and Robert J. Boland

BRIEF REPORTS

361 **MN Blood Groups and Bipolar Disorder: Evidence of Genotypic Association and Hardy–Weinberg Disequilibrium**
Martin Alda, Paul Grof, and Eva Grof

364 **The Role of the β-Noradrenergic System in Cholecystokinin-Tetrapeptide-Induced Panic Symptoms**
Jean-Michel Le Mellédo, Jacques Bradwejn, Diana Koszycki, Daniel Georges Bichet, and François Bellavance

367 **Effects of Meta-Chlorophenylpiperazine on Cerebral Blood Flow in Obsessive–Compulsive Disorder and Controls**
Kamini L. Ho Pian, Herman G.M. Westenberg, Johan A. den Boer, Wieger I. de Bruin, and Peter P. van Rijk

371 **No Mitochondrial Haplotype Was Found to Increase Risk for Alzheimer's Disease**
Gábor Zsurka, János Kálmán, Anna Juhász, Albert Császár, István Raskó, Zoltán Janka, and Pál Venetianer

CORRESPONDENCE

374 **Sexual Dysfunction and Selective Serotonin Reuptake Inhibitors**
Michèle Gagnon, Steve Layton, and Claude Messier

374 **Dual Relation between Leptin and Cortisol in Humans Is Disturbed in Alzheimer's Disease**
Tommy Olsson, Birgitta Näsman, Sigbritt Rasmuson, and Bo Ahrén

Volume 44, Number 6, September 15, 1998

EDITORIAL

377 ***Biological Psychiatry*—A Journal Progress Report**
Daniel R. Weinberger and Dennis S. Charney

378 **Specific Treatment of the Neuroleptic Malignant Syndrome**
Stanley N. Caroff, Stephan C. Mann, and Paul E. Keck, Jr.

REVIEW ARTICLE

382 **In Vivo Neurochemistry of the Brain in Schizophrenia as Revealed by Magnetic Resonance Spectroscopy**
Lawrence S. Kegeles, Teresa J. Humaran, and J. John Mann

ORIGINAL ARTICLES

399 **^{31}Phosphorus Magnetic Resonance Spectroscopy of the Dorsolateral Prefrontal Region in Schizophrenics—A Study Including 50 Patients and 36 Controls**
Hans-Peter Volz, Reinhard Rzanny, Grit Rössger, Gabriele Hübner, Ilonka Kreitschmann-Andermahr, Werner Alois Kaiser, and Heinrich Sauer

405 **Corpus Callosum Shape and Size in Male Patients with Schizophrenia**
Philip Tibbo, Peg Nopoulos, Stephan Arndt, and Nancy C. Andreasen

413 **Hemispheric Asymmetry of Frontal and Temporal Gray Matter and Age of Onset in Schizophrenia**
Brendan A. Maher, Theo C. Manschreck, Deborah A. Yurgelun-Todd, and Ming T. Tsuang

418 **Temporal Horn Enlargement Is Present in Schizophrenia and Bipolar Disorder**
Paul D. Roy, Robert B. Zipursky, Jean A. Saint-Cyr, Allison Bury, Ronald Langevin, and Mary V. Seeman

423 **Comparison of Glutamate and Gamma-Aminobutyric Acid Uptake Binding Sites in Frontal and Temporal Lobes in Schizophrenia**
Michael D.C. Simpson, Paul Slater, and J.F. William Deakin

428 **Inositol Levels Are Decreased in Postmortem Brain of Schizophrenic Patients**
Hady Shimon, Yelena Sobolev, Michael Davidson, Varham Haroutunian, Robert H. Belmaker, and Galila Agam

433 **Cerebrospinal Fluid Inositol Monophosphatase: Elevated Activity in Depression and Neuroleptic-Treated Schizophrenia**
John R. Atack, Joseph Levine, and Robert H. Belmaker

438 **Low Frontal Electroencephalographic Coherence in Neuroleptic-Free Schizophrenic Patients**
Johannes Tauscher, Peter Fischer, Alexander Neumeister, Peter Rappelsberger, and Siegfried Kasper

448 **Distinguishing Schizophrenic Patients from Healthy Controls by Quantitative Measurement of Eye Movement Parameters**
Volker Arolt, Hans-Martin Teichert, Dietmar Steege, Resekka Lencer, and Wolfgang Heide

459 **The Relationship between Skin Conductance Hyporesponsivity and Perseverations in Schizophrenia Patients**
William Perry, Tracy Felger, and David Braff

466 **P300 Delay and Attenuation in Schizophrenia: Reversal by Neuroleptic Medication**
Kerry L. Coburn, Samuel D. Shillcutt, Karen A. Tucker, Kristi M. Estes, Foster B. Brin, Prakash Merai, and Norman C. Moore

475 **Predictors of Differential Response to Clozapine and Haloperidol**
Robert Rosenheck, William Lawson, John Crayton, Joyce Cramer, Weichun Xu, Jonathan Thomas, Marilyn Stolar, and Dennis Charney for the Department of Veterans Affairs Cooperative Study Group on Clozapine in Refractory Schizophrenia

483 **Dopamine D4 Receptor Gene Polymorphisms and Neuroleptic Response in Schizophrenia**
Hai-Gwo Hwu, Chen-Jee Hong, Yi-Ling Lee, Ping-Chuan Lee, and Sandy F.C. Lee

488 **Pretreatment Plasma Homovanillic Acid in Schizophrenia and Schizoaffective Disorder: The Influence of Demographic Variables and the Inpatient Drug-Free Period**
Rajiv P. Sharma, Javaid I. Javaid, John M. Davis, and Philip G. Janicak

493 **Tardive Dyskinesia and Serum Iron Indices**
Donna A. Wirshing, George Bartzokis, Joseph M. Pierre, William C. Wirshing, Albert Sun, Todd A. Tishler, and Stephen R. Marder

499 **Serum Iron in Catatonia and Neuroleptic Malignant Syndrome**
Joseph W.Y. Lee

508 **Enhancement of Antipsychoticlike Properties of Raclopride in Rats Using the Selective Serotonin$_{2A}$ Receptor Antagonist MDL 100,907**
Marie-Louise G. Wadenberg, Paul B. Hicks, J. Travis Richter, and Keith A. Young

Volume 44, Number 7, October 1, 1998

A DECADE OF SEROTONIN RESEARCH: LOOKING TOWARD THE FUTURE

517 **Psychopharmacology of Affective Disorders in the 21st Century**
Charles B. Nemeroff

526 **Antidepressant Treatments in the 21st Century**
Eric J. Nestler

534 **Imaging of the Serotonergic System: Interactions of Neuroanatomical and Functional Abnormalities of Depression**
Julie K. Staley, Robert T. Malison, and Robert B. Innis

ORIGINAL ARTICLES

550 **Functional Polymorphism in the Serotonin Transporter Promoter at the SLC6A4 Locus and Mood Disorders**
Koichi Ohara, Miho Nagai, Toshio Tsukamoto, Kunihiko Tani, Yasuo Suzuki, and Kenshiro Ohara

555 **Assessment of Serotonergic Function in Major Depression Using *d*-Fenfluramine: Relation to Clinical Variables and Antidepressant Response**
Anthony J. Cleare, Robin M. Murray, and Veronica O'Keane

562 **Parenteral Clomipramine Challenge in Depressed Adolescents: Mood and Neuroendocrine Response**
Floyd R. Sallee, Nandagopal S. Vrindavanam, Deborah Deas-Nesmith, April M. Odom, Stanley W. Carson, and Gopalan Sethuraman

568 **Peripheral Serotonin Measures in Prepubertal Psychiatric Inpatients and Normal Children: Associations with Suicidal Behavior and Its Risk Factors**
Cynthia R. Pfeffer, P. Anne McBride, George M. Anderson, Tatsuyuki Kakuma, Leonard Fensterheim, and Vadim Khait

578 **Alterations in Serotonergic Responsiveness during Cocaine Withdrawal in Rats: Similarities to Major Depression in Humans**
Michael H. Baumann and Richard B. Rothman

592 **Magnetic Resonance Imaging Correlates of Depression in Early- and Late-Onset Alzheimer's Disease**
Laura M. Clark, William M. McDonald, Kathleen A. Welsh-Bohmer, Ilene C. Siegler, Deborah V. Dawson, Larry A. Tupler, and K. Ranga Rama Krishnan

600 **Adrenergic Receptors in Premenstrual Dysphoric Disorder: I. Platelet α_2 Receptors: G_i Protein Coupling, Phase of Menstrual Cycle, and Prediction of Luteal Phase Symptom Severity**
George N.M. Gurguis, Kimberly A. Yonkers, Stephanie P. Phan, Jaishri E. Blakeley, Anita Williams, and A. John Rush

610 **Effects of Electroconvulsive Therapy on Plasma Vasopressin and Oxytocin**
D.P. Devanand, Sarah Lisanby, Ee-Sing Lo, Linda Fitzsimons, Thomas B. Cooper, Uriel Halbreich, and Harold A. Sackeim

617 **Effect of Antidepressants on Intracellular Ca^{++} Mobilization in Human Frontal Cortex**
Sridhara Rao Jagadeesh and M. Nadir Subhash

622 **Natural Bright Light Exposure in the Summer and Winter in Subjects with and without Complaints of Seasonal Mood Variations**
Josée Guillemette, Marc Hébert, Jean Paquet, and Marie Dumont

629 **Bupropion Slow-Release Response in Depression: Diagnosis and Biochemistry**
Paul J. Goodnick, Roberto A. Dominguez, C. Lindsay DeVane, and Charles L. Bowden

633 **Placebo-Controlled Study of Sertraline in Depressed Recently Abstinent Alcoholics**
Alec Roy

638 **Joint Influence of Alcohol, Tobacco, and Coffee on Biological Markers of Heavy Drinking in Alcoholics**
Henri-Jean Aubin, Chantal Laureaux, Françoise Zerah, Samir Tilikete, Franck Vernier, Blandine Vallat, and Dominique Barrucand

644 **No Association between Dopamine D_1, D_2, and D_3 Receptor Genes and Manic-Depressive Illness**
Christine Savoye, Claudine Laurent, Stéphane Amadeo, Francis Gheysen, Marion Leboyer, Jean Lejeune, Edouard Zarifian, and Jacques Mallet

648 **The Lower Limits of Dexamethasone Window in Chinese Depressives**
I-Shin Shiah, Huei-Chen Ko, and Ru-Band Lu

Volume 44, Number 8, October 15, 1998

EDITORIAL

657 **Cloning the Human Gamma-Aminobutyric Acid B Receptor Gene: Multiple Windows of Opportunity in Biological Psychiatry**
Wade Berrettini

PRIORITY COMMUNICATION

659 **Human Gamma-Aminobutyric Acid B Receptor Gene: Complementary DNA Cloning, Expression, Chromosomal Location, and Genomic Organization**
Vita L. Goei, Jenny Choi, Jung Ahn, Christopher L. Bowlus, Ruma Raha-Chowdhury, and Jeffrey R. Gruen

ORIGINAL ARTICLES

667 **Glutamatergic Neurotransmission Involves Structural and Clinical Deficits of Schizophrenia**
Guochuan Tsai, Daniel P. van Kammen, Shao Chen, Mary E. Kelley, Arik Grier, and Joseph T. Coyle

675 **Striatal Enlargement in Rats Chronically Treated with Neuroleptic**
Miranda H. Chakos, Osamu Shirakawa, Jeffrey Lieberman, Heidi Lee, Robert Bilder, and Carol A. Tamminga

685 **Differences in Cerebral Activation during Smooth Pursuit and Saccadic Eye Movements Using Positron-Emission Tomography**
Gillian A. O'Driscoll, Stephen M. Strakowski, Nathaniel M. Alpert, Steven W. Matthysse, Scott L. Rauch, Deborah L. Levy, and Philip S. Holzman

690 **Anticipatory Saccades during Smooth Pursuit Eye Movements and Familial**

Transmission of Schizophrenia
Randal G. Ross, Ann Olincy, Josette G. Harris, Allen Radant, Lawrence E. Adler, and Robert Freedman

698 **Eye Tracking Abnormalities in Schizophrenia: Evidence for Dysfunction in the Frontal Eye Fields**
John A. Sweeney, Beatriz Luna, Nalini M. Srinivasagam, Matcheri S. Keshavan, Nina R. Schooler, Gretchen L. Haas, and James R. Carl

709 **The Effects of Chlorpromazine and Lorazepam on Abnormal Antisaccade and No-Saccade Distractibility**
Jonathan F. Green and David J. King

716 **Effects of Clozapine on Auditory Event-Related Potentials in Schizophrenia**
Daniel Umbricht, Daniel Javitt, Gerald Novak, John Bates, Simcha Pollack, Jeffrey Lieberman, and John Kane

726 **Risperidone vs. Haloperidol on Reaction Time, Manual Dexterity, and Motor Learning in Treatment-Resistant Schizophrenia Patients**
Robert S. Kern, Michael F. Green, Barringer D. Marshall, Jr, William C. Wirshing, Donna Wirshing, Susan McGurk, Stephen R. Marder, and Jim Mintz

733 **Relationship between Patient Variables and Plasma Clozapine Concentrations: A Dosing Nomogram**
Paul J. Perry, Kristine A. Bever, Stephan Arndt, and Michael D. Combs

739 **Premorbid Educational Attainment in Schizophrenia: Association with Symptoms, Functioning, and Neurobehavioral Measures**
Charlie L. Swanson, Jr, Ruben C. Gur, Warren Bilker, Richard G. Petty, and Raquel E. Gur

748 **Clinical and Pharmacologic Risk Factors for Neuroleptic Malignant Syndrome: A Case–Control Study**
Domenico Berardi, Mario Amore, Paul E. Keck, Jr, Mario Troia, and Maddalena Dell'Atti

755 **Patients with Premenstrual Syndrome Have Decreased Saccadic Eye Velocity Compared to Control Subjects**
Inger Sundström and Torbjörn Bäckström

765 **Nigrostriatal Dopaminergic Activities in Dementia with Lewy Bodies in Relation to Neuroleptic Sensitivity: Comparisons with Parkinson's Disease**
Margaret A. Piggott, Elaine K. Perry, Elizabeth F. Marshall, Ian G. McKeith, Mary Johnson, Heather L. Melrose, Jennifer A. Court, Stephen Lloyd, Andrew Fairbairn, Andrew Brown, Peter Thompson, and Robert H. Perry

TECHNIQUES AND METHODS

775 **Multiple Correlations and Bonferroni's Correction**
François Curtin and Pierre Schulz

BRIEF REPORTS

778 **Novel Antipsychotics and New Onset Diabetes**
Donna A. Wirshing, Brad J. Spellberg, Stephen M. Erhart, Stephen R. Marder, and William C. Wirshing

784 **Symptom Correlates of Attentional Improvement following Hospitalization for a First Episode of Affective Psychosis**
Kenji W. Sax, Stephen M. Strakowski, Paul E. Keck, Jr., Susan L. McElroy, Scott A. West, and Sean P. Stanton

787 **The Resting and Activation Issue of Hypofrontality: A Single Photon Emission Computed Tomography Study in Neuroleptic-Naive and Neuroleptic-Free**

Schizophrenic Female Patients
Eduard Parellada, Ana M. Catafau, Miquel Bernardo, Francisco Lomeña, Silvia Catarineu, and Enric González-Monclús

CASE REPORT

791 **Differential Sensitivities to Risperidone and Olanzapine in a Human Immunodeficiency Virus Patient**
Jonahan M. Meyer, Jeffrey Marsh, and George Simpson

Volume 44, Number 9, November 1, 1998

EDITORIAL

795 **Serotonin, a Major Player in the Regulation of Feeding and Affect**
Regina C. Casper

A DECADE OF SEROTONIN RESEARCH: REGULATION OF AFFECT AND EATING BEHAVIOR

798 **Estrogen, Serotonin, and Mood Disturbance: Where Is the Therapeutic Bridge?**
Hadine Joffe and Lee S. Cohen

812 **Clinical Utility of the Selective Serotonin Reuptake Inhibitors in the Spectrum of Anxiety**
Justine M. Kent, Jeremy D. Coplan, and Jack M. Gorman

825 **Serotonin Neuronal Function and Selective Serotonin Reuptake Inhibitor Treatment in Anorexia and Bulimia Nervosa**
Walter Kaye, Kelly Gendall, and Michael Strober

839 **Estrogen–Serotonin Interactions: Implications for Affective Regulation**
David R. Rubinow, Peter J. Schmidt, and Catherine A. Roca

851 **Hypothalamic Serotonin in Control of Eating Behavior, Meal Size, and Body Weight**
Sarah F. Leibowitz and Jesline T. Alexander

865 **Can the Antidysphoric and Anxiolytic Profiles of Selective Serotonin Reuptake Inhibitors Be Related to Their Ability to Increase Brain 3α, 5α-Tetrahydroprogesterone (Allopregnanolone) Availability?**
Alessandro Guidotti and Erminio Costa

ORIGINAL ARTICLES

874 **Plasma Melatonin and Cortisol in Patients with Obsessive Compulsive Disorder: Relationship with Axillary Temperature, Physical Activity, and Clinical Symptoms**
Bruno Millet, Yvan Touitou, Marie-France Poirier, Marie-Chantal Bourdel, Elie Hantouche, André Bogdan, and Jean-Pierre Olié

882 **Social Subordination Stress, Behavior, and Central Monoaminergic Function in Female Cynomolgus Monkeys**
Carol A. Shively

892 **Alpha2 Isoform of the Na,K-Adenosine Triphosphatase Is Reduced in Temporal**

Cortex of Bipolar Individuals
Andrea M. Rose, Brenda J. Mellett, Roland Valdes, Jr, Joel E. Kleinman, Mary M. Herman, Rena Li, and Rif S. El-Mallakh

898 **Depersonalization: Neurobiological Perspectives**
Mauricio Sierra and German E. Berrios

BRIEF REPORTS

909 **Protein Kinase C in Platelets of Depressed Patients**
Ghanshyam N. Pandey, Yogesh Dwivedi, Ranjana Kumari, and Philip G. Janicak

912 **Neuroactive Steroid Concentrations following Metyrapone Administration in Depressed Patients and Healthy Volunteers**
Rainer Rupprecht, Andreas Ströhle, Bettina Hermann, Flavia di Michele, Gianfranco Spalletta, Augusto Pasini, Florian Holsboer, and Elena Romeo

915 **Inhibition of Anxiety in Rats by Antisense to Cholecystokinin Precursor Protein**
Hagit Cohen, Zeev Kaplan, and Moshe Kotler

918 **Fenfluramine Challenge Test as a Marker of Serotonin Activity in Patients with Alzheimer's Dementia and Agitation**
Jacobo Mintzer, Olga Brawman-Mintzer, Dario F. Mirski, Richard Unger, Paul Nietert, Allison Meeks, and Royce Sampson

922 **The Monoamine Oxidase-A Gene and Major Psychosis in Japanese Subjects**
Tsukasa Sasaki, Mineko Hattori, Toshiyuki Sakai, Tadafumi Kato, Hiroshi Kunugi, Tetsuya Hirose, and Shinichiro Nanko

CASE REPORTS

925 **Suicide Attempts with Mirtazapine Overdose without Complications**
Rüdiger Holzbach, Holger Jahn, Frank-Gerald Pajonk, and Christiane Mähne

927 **Recurrent Brief Depression Successfully Treated with Lithium**
Antoni Corominas, Pere Bonet, and Evaristo Nieto

930 **Addition of Carbamazepine to Long-Term Treatment with Neuroleptics May Induce Neuroleptic Malignant Syndrome**
Koichi Nisijima, Yasuhiro Kusakabe, Kouichiro Ohtuka, and Takeo Ishiguro

CORRESPONDENCE

932 **Global Structural Brain Abnormalities in Mood Disorders: Evidence from a Meta-Analysis versus a Traditional Review**

935 **Startle in Tourette's Syndrome**

936 **Dopamine and the P50**

Volume 44, Number 10, November 15, 1998

EDITORIAL

939 **Biological Phenotypes in the Genetics of Schizophrenia**
Robert Freedman

PRIORITY COMMUNICATION

941 **Hippocampal N-Acetyl Aspartate in Unaffected Siblings of Patients with Schizophrenia: A Possible Intermediate Neurobiological Phenotype**
Joseph H. Callicott, Michael F. Egan, Alessandro Bertolino, Venkata S. Mattay, Frederick J.P. Langheim, Joseph A. Frank, and Daniel R. Weinberger

REVIEW ARTICLE

951 **Neurobiology of Attention-Deficit Hyperactivity Disorder**
Stephen V. Faraone and Joseph Biederman

ORIGINAL ARTICLES

959 **Toward a Generalizable Model of Symptoms in Major Depressive Disorder**
Christina M. Gullion and A. John Rush

973 **Serotonergic Functioning in Depressed Abused Children: Clinical and Familial Correlates**
Joan Kaufman, Boris Birmaher, James Perel, Ronald E. Dahl, Stacy Stull, David Brent, Laura Trubnick, Mayadah Al-Shabbout, and Neal D. Ryan

982 **High-Density Recording and Topographic Analysis of the Auditory Oddball Event-Related Potential in Patients with Schizophrenia**
Geoffrey F. Potts, Yoshio Hirayasu, Brian F. O'Donnell, Martha E. Shenton, and Robert W. McCarley

990 **Fear-Potentiated Startle in Adolescent Offspring of Parents with Anxiety Disorders**
Christian Grillon, Lisa Dierker, and Kathleen R. Merikangas

998 **Regional Cerebral Metabolic Asymmetries Replicated in an Independent Group of Patients with Panic Disorder**
Thomas E. Nordahl, Murray B. Stein, Chawki Benkelfat, William E. Semple, Paul Andreason, Allen Zametkin, Thomas W. Uhde, and Robert M. Cohen

1007 **Sodium Lactate and Hypertonic Sodium Chloride Induce Equivalent Panic Incidence, Panic Symptoms, and Hypernatremia in Panic Disorder**
Elaine R. Peskind, Carl F. Jensen, Marcella Pascualy, Debby Tsuang, Deborah Cowley, Donald C. Martin, Charles W. Wilkinson, and Murray A. Raskind

1017 **Predictability, Controllability, and Fear of Symptoms of Anxiety in Epinephrine-Induced Panic**
Dick J. Veltman, Gudo A. van Zijderveld, Richard van Dyck, and Abraham Bakker

1027 **Effects of Experimental Context and Explicit Threat Cues on Acoustic Startle in Vietnam Veterans with Posttraumatic Stress Disorder**
Christian Grillon, Charles A. Morgan, III, Michael Davis, and Steven M. Southwick

1037 **Psychophysiologic Responsivity in Posttraumatic Stress Disorder: Generalized Hyperresponsiveness versus Trauma Specificity**
John H. Casada, Richard Amdur, Randy Larsen, and Israel Liberzon

1045 **Event-Related Potentials to Stimuli with Emotional Impact in Posttraumatic Stress Patients**
Svein Blomhoff, Ivar Reinvang, and Ulrik F. Malt

1054 **Analysis of Heart Rate Variability in Posttraumatic Stress Disorder Patients in**

Response to a Trauma-Related Reminder
Hagit Cohen, Moshe Kotler, Mike A. Matar, Zeev Kaplan, Uri Loewenthal, Hanoch Miodownik, and Yair Cassuto

1060 **Elevated Awaking Thresholds during Sleep: Characteristics of Chronic War-Related Posttraumatic Stress Disorder Patients**
Peretz Lavie, Neri Katz, Giora Pillar, and Yaffa Zinger

1066 **Polysomnographic Sleep Is Not Clinically Impaired in Vietnam Combat Veterans with Chronic Posttraumatic Stress Disorder**
Thomas D. Hurwitz, Mark W. Mahowald, Michael Kuskowski, and Brian E. Engdahl

Volume 44, Number 11, December 1, 1998

EDITORIALS

1075 **D-Serine and the Therapeutic Challenge Posed by the *N*-Methyl-D-Aspartate Antagonist Model of Schizophrenia**
John H. Krystal and D. Cyril D'Souza

1077 **The Role of In Vivo Neurotransmitter System Imaging Studies in Understanding Major Depression**
J. John Mann

1079 **Serotonin and Schizophrenia**
Carol A. Tamminga

PRIORITY COMMUNICATIONS

1081 **D-Serine Added to Antipsychotics for the Treatment of Schizophrenia**
Guochuan Tsai, Pinchen Yang, Li-Chen Chung, Nicholas Lange, and Joseph T. Coyle

1090 **Reduced Brain Serotonin Transporter Availability in Major Depression as Measured by [^{123}I]-2β-carbomethoxy-3β-(4-iodophenyl)tropane and Single Photon Emission Computed Tomography**
Robert T. Malison, Lawrence H. Price, Robert Berman, Christopher H. van Dyck, Gregory H. Pelton, Linda Carpenter, Gerard Sanacora, Michael J. Owens, Charles B. Nemeroff, Nallakandi Rajeevan, Robert M. Baldwin, John P. Seibyl, Robert B. Innis and Dennis S. Charney

A DECADE OF SEROTONIN RESEARCH: ROLE OF SEROTONIN IN TREATMENT OF PSYCHOSIS

1099 **Serotonergic Basis of Antipsychotic Drug Effects in Schizophrenia**
Jeffrey A. Lieberman, Richard B. Mailman, Gary Duncan, Lin Sikich, Miranda Chakos, David E. Nichols, and John E. Kraus

1118 **The Electrophysiology of Prefrontal Serotonin Systems: Therapeutic Implications for Mood and Psychosis**
Gerard J. Marek and George K. Aghajanian

1128 **The Molecular Biology of Serotonin Receptors: Therapeutic Implications for the Interface of Mood and Psychosis**
Wesley K. Kroeze and Bryan L. Roth

ORIGINAL ARTICLES

1143 **Progressive Neurodegeneration after Intracerebroventricular Kainic Acid Administration in Rats: Implications for Schizophrenia?**
John G. Csernansky, Cynthia A. Csernansky, Laura Kogelman, Estelle-Marie Montgomery, and Mark E. Bardgett

1151 **Processing of Auditory Stimuli during Visual Attention in Patients with Schizophrenia**
Claude Alain, Rita Hargrave, and David L. Woods
1160 **Analysis of CAG/CTG Repeat Size in Chinese Subjects with Schizophrenia and Bipolar Affective Disorder Using the Repeat Expansion Detection Method**
Tao Li, Homero P. Vallada, Xiehe Liu, Tao Xie, Xiangdong Tang, Jinghua Zhao, Michael C. O'Donovan, Robin M. Murray, Pak C. Sham, and David A. Collier
1166 **Dopamine Uptake by Platelet Storage Granules in First-Degree Relatives of Tourette's Syndrome Patients**
Jose Martin Rabey, Ilan Amir, Therese A. Treves, Ziona Oberman, and Amos D. Korczyn
1171 **Progressive Behavioral Response to Repeated d-Amphetamine Challenge: Further Evidence for Sensitization in Humans**
Stephen M. Strakowski and Kenji W. Sax
1178 **A Phosphoinositide-Linked Dopamine D1 Receptor Mediates Repetitive Jaw Movements in Rats**
Helen Rosengarten and Arnold J. Friedhoff
1185 **Human CYP2D6 and Metabolism of m-Chlorophenylpiperazine**
Susan Rotzinger, Jian Fang, Ronald T. Coutts, and Glen B. Baker

BRIEF REPORTS

1192 **Enhanced Behavioral Response to Repeated d-Amphetamine and Personality Traits in Humans**
Kenji W. Sax and Stephen M. Strakowski
1196 **Neurofeedback Treatment of Pseudoseizure Disorder**
Paul G. Swingle

Volume 44, Number 12, December 15, 1998

EDITORIALS

1201 **Brain Neurocircuitry of Anxiety and Fear: Implications for Clinical Research and Practice**
Steven E. Hyman
1204 **Translational Implications of the Amygdala Stria Terminalis Model for the Clinical Anxiety Disorders**
James C. Ballenger
1208 **Binge-Eating and Bulimia: Potential Insights into Etiology and Pathophysiology through Genetic Epidemiologic Studies**
Andrew C. Heath

PRIORITY COMMUNICATIONS

1210 **Heritability of Binge-Eating and Broadly Defined Bulimia Nervosa**
Cynthia M. Bulik, Patrick F. Sullivan, and Kenneth S. Kendler
1219 **The Emotional Counting Stroop Paradigm: A Functional Magnetic Resonance Imaging Probe of the Anterior Cingulate Affective Division**
Paul J. Whalen, George Bush, Richard J. McNally, Sabine Wilhelm, Sean C. McInerney, Michael A. Jenike, and Scott L. Rauch

THE NEURAL CIRCUITS UNDERLYING ANXIETY AND FEAR

1229 **Fear and the Brain: Where Have We Been, and Where Are We Going?**
Joseph LeDoux

1239 **Are Different Parts of the Extended Amygdala Involved in Fear versus Anxiety?**
Michael Davis

1248 **Emotion, Motivation, and Anxiety: Brain Mechanisms and Psychophysiology**
Peter J. Lang, Margaret M. Bradley, and Bruce N. Cuthbert

THE NEUROBIOLOGY OF ANXIETY DISORDERS

1264 **Brain Circuits in Panic Disorder**
Jeremy D. Coplan and R. Bruce Lydiard

1277 **Neurobiological Perspectives on Social Phobia: From Affiliation to Zoology**
Murray B. Stein

1286 **Generalized Anxiety Disorder: Neurobiological and Pharmacotherapeutic Perspectives**
Kathryn M. Connor and Jonathan R.T. Davidson

1295 **Current Approaches to Etiology and Pathophysiology of Specific Phobia**
Abby J. Fyer

1305 **Predicting the Development of Posttraumatic Stress Disorder from the Acute Response to a Traumatic Event**
Rachel Yehuda, Alexander C. McFarlane, and Arieh Y. Shalev

ORIGINAL ARTICLES

1314 **Shortened REM Latency as a Psychobiological Marker for Psychotic Depression? An Age-, Gender-, and Polarity-Controlled Study**
Grigori Stefos, Luc Staner, Myriam Kerkhofs, Philippe Hubain, Julien Mendlewicz, and Paul Linkowski

1321 **Cerebrospinal Fluid Monoamines in Prader Willi Syndrome**
Arne Åkefeldt, Rolf Ekman, Christopher Gillberg, and Jan-Eric Månsson

1329 **Prefrontal and Striatal Dopamine Metabolism during Enhanced Rebound Hyperphagia Induced by Space Restriction—A Rat Model of Binge Eating**
Koki Inoue, Nobuo Kiriike, Masakage Okuno, Yasutoshi Fujisaki, Masanori Kurioka, Shinichi Iwasaki, and Sakae Yamagami

1337 **The Temporal Dynamics of Tics in Gilles de la Tourette Syndrome**
Bradley S. Peterson and James F. Leckman

BRIEF REPORT

1349 **Cerebrospinal Fluid Levels of Oxytocin in Prader Willi Syndrome: A Preliminary Report**
Andrés Martin, Matthew State, George M. Anderson, Walter M. Kaye, Jeanne M. Hanchett, Claire W. McConaha, William G. North, and James F. Leckman

1353 **Acknowledgments**

1356 **Author Index**

1366 **Subject Index**